The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ANDREJ LITWIN and SHIH-HSIN YING

Appeal No. 1998-2919
Application No. 08/405,063

ON BRIEF

Before JOHN D. SMITH, GARRIS and WARREN, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 15, 16 and 18 which are all of the claims pending in the application.

The subject matter on appeal relates to a method of forming an inhomogeneous doped film for low temperature reflow comprising the steps of forming first and second BPSG layers wherein the second layer has between around 1-4 wt. % phosphorus and between around 7-8 wt. % boron, and reflowing the first and second BPSG layers near 700° C. This appealed

subject matter is adequately illustrated by independent claim 15 which reads as follows:

15. A method of forming an inhomogeneous doped film for low temperature reflow, comprising the steps of:

forming a first BPSG layer having dopant concentration around 4.4 wt. % boron and around 5.6 wt. % phosphorus;

forming a second abutting and overlying BPSG layer having dopant concentration between around 1 - 4 wt. % phosphorus and between around 7 - 8 wt.% boron; and

reflowing the first and second BPSG layers near 700°C.

The references relied upon by the examiner as evidence of obviousness are:

Flatley et al. (Flatley)	4,349,584	Sep. 14, 1982
Lee et al. (Lee) '333	5,268,333	Dec. 7, 1993
Lee et al. (Lee) '101	5,166,101	Nov. 24, 1992

All of the appealed claims stand rejected under 35 U.S.C. § 103 as being unpatentable over Lee '333 in combination with Flatley and Lee '101.

We refer to the brief and to the answer for a thorough exposition of the respective positions advocated by the appellants and by the examiner concerning the above noted rejection.

OPINION

For the reasons set forth below, we cannot sustain this rejection.

According to the examiner, "[i]t would have been obvious to one of ordinary skill in the art to have second BPSG layer in Lee . . . '333 with same phosphorus concentration as disclosed in Flatley because Flatley shows the benefit of having low phosphorus concentration in BPSG layer together with low temperature heating provides no doping on underlying layers"
(2nd Office Action, Paper No. 6, page 4, mailed June 5, 1996).

From our perspective, the aforenoted references do not support the examiner's obviousness conclusion. Moreover, our determination on this matter is compelled by several deficiencies in the examiner's reference evidence.

In the first place, the Flatley teaching involves only a single BPSG layer, yet the examiner has applied this single layer teaching to the double layer construction of Lee '333 and more particularly has applied this single layer teaching to the second rather than first layer of the Lee '333 construction. We see nothing and the examiner points to nothing in these references which would have led an artisan to

apply Flatley's teaching to the second layer specifically of Lee '333. This deficiency suggests to us that the examiner has applied impermissible hindsight in reaching his conclusion of obviousness.

Even if an artisan were to consider Flatley's teaching as applicable to the Lee '333 second layer specifically, the rejection formulated by the examiner still would be deficient. This is because the rejection is based upon the proposition that the artisan, in so applying the teaching of Flatley to Lee '333, would have selectively focused only upon the phosphorus content while ignoring the boron content taught in these references. It appears to us that the application of Flatley's teaching to the second layer of Lee '333 would result in the use of Flatley's boron as well as his phosphorus concentrations in this second layer. Of course, this result would include boron concentrations which are outside the here claimed range.

Thus, in order to modify the second layer of Lee '333 so as to result in boron and phosphorus concentrations which are both within the here claimed ranges, an artisan would have to focus on only the phosphorus concentration while ignoring the

boron concentration of Flatley. Again, we find nothing and the examiner points to nothing in these references which would have led an artisan to selectively pick and choose from Flatley's teachings in this manner. Only by inappropriately using the appellants' own disclosure as a blueprint would the artisan have been guided to such picking and choosing.

These circumstances compel us to determine that the examiner's rejection is based upon impermissible hindsight. W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). It follows that we cannot sustain the examiner's § 103 rejection of the appealed claims as being unpatentable over Lee '333 and combination with Flatley and Lee '101.

The decision of the examiner is reversed.

REVERSED

JOHN D. SMITH)
Administrative Patent Judge)
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) BOARD OF PATENT
BRADLEY R. GARRIS) APPEALS
Administrative Patent Judge) AND
) INTERFERENCES

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CHARLES F. WARREN)
Administrative Patent Judge)

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